

Commentary

Monitoring of substance abuse in India - Initiatives & experiences

Substance use is ubiquitous with a range of substances being abused the world over. Their abuse and associated harm have been of international concern since early 1980s and the WHO highlighted the importance of monitoring the drug abuse situation and trends¹. Monitoring thus assumes importance which must be timely and sensitive to the trends which are dynamic and vary according to population and geographic region.

Several modalities can be used to monitor data. Epidemiological surveys provide information on prevalence and trends of drug use among general population. It is important to draw a distinction between population survey carried out on national probability sample and those carried out as regional and/or local surveys which may also be unique in a time series data. Survey methods hold promise in monitoring trend data but have their limitations which include large sample sizes and are resource intensive². On the other hand, data from treatment centres provide information on drug consumption patterns and trends from people entering treatment. Such a method is cost-effective as data can be collected with limited financial effort. In addition, organization profile and available treatment facilities can also be obtained³.

International efforts

There are national reporting systems in place in several countries. The United States has systems like the Drug and Alcohol Services Information System (DASIS)⁴; Treatment Episode Demand System (TEDS)⁵ a component of DASIS and Drug Abuse Warning Network (DAWN)⁶. Some of these systems are episode-based, while others draw information directly from patients' records and provide characteristics and drug history information of individuals admitted to treatment facility including contact with emergency departments (DAWN).

Treatment registries and monitoring data for 30 countries under EU and Member States are being compiled by the European Monitoring Centre for Drugs and Drug Addictions (EMCDDA)⁷. Some EU countries maintain centralized systems of referral, treatment, monitoring and reporting while others have de-centralized systems with minimal reporting requirements.

Guidelines for establishing and managing systems for the collection of treatment data are also available. Other monitoring modalities include the 'Pulse Check' in the US which reports on national trends and provides timely information on illicit drug abuse and drug markets gathered from telephone conversations with ethnographers, epidemiologists, law enforcement officials and treatment providers from 25 sites across USA⁸. Thus, documentation of changing drug use trends requires multiple methods.

In the article by Basu *et al*⁹ in the current issue, the authors demonstrate that the information collected as a routine procedure in a treatment centre can provide a relatively inexpensive method of monitoring changing trends of drug use in a community. It is important to compare these retrospective data from a single treatment against the national trend, if available.

Monitoring drug use - India

Data on drug use have been recorded through several general population surveys in 1970s and 1980s¹⁰. Cannabis, tranquilizers and alcohol use in 1980s among general population and heroin use was established in early 1980s⁹. However, all these studies have been district/ regional surveys and do not project the national picture¹⁰. Thus, changing trends through population survey in India are not available.

The viability of a Drug Abuse Monitoring System in the country was examined for the first time through

a Task force project (ICMR) conducted at Delhi, Jodhpur and Lucknow in 1990 and provided one year data among 10,321 persons¹¹. A large scale exercise as a sub-component of the National survey on drug abuse documented information on treatment seekers (N=16942) from government organizations, non government organizations (NGOs) and private sectors (NHS, 2004, data obtained in 2001-2002) over a three month period¹². This attempt at monitoring though of a shorter duration, provided a baseline for establishing large scale efforts.

Prospective data (Drug Abuse Monitoring System-DAMS) have been collected by the National Drug Dependence Treatment Centre (NDDTC) at the All India Institute of Medical Sciences (AIIMS), New Delhi, with the support of the WHO-India office, but have not been published and are available as reports with the Drug De-Addiction Programme, Ministry of Health and Family Welfare, (DDAP, MoHFW, NDDTC and WHO, unpublished data). The proforma uses 19 items. The data have been obtained from persons

seeking help at 122 treatment centres supported by the DDAP, the effort started in January 2006 and is ongoing. However, only about 45 per cent of the centres (out of 122) contributed data over these three years (DAMS, 2007-2009). Thus data from treatment centres as a part of a national effort to document changing trends are available over several years. Despite this inadequacy, the information has been useful to policymakers and helped DDAP/ NACO (National AIDS Control Organization) to develop harm reduction programme and Oral Substitution Treatment (OST).

The data across several of these studies (1988-2009) are presented in the Table. Two of the studies reflect national data (NHS, 2004 and DAMS, 2007-2009) and show that increasing number of subjects are seeking treatment for opiate dependence in later years; other variables have remained largely unchanged. It is obvious from this effort that the participating government treatment centres do not give priority to this task and there is inadequate record keeping. Chronic under reporting leads to inaccurate national

Table. Comparison of data on select variables across different studies

	ICMR Task Force Project (Mohan <i>et al</i> ¹¹)	National household survey (Ray <i>et al</i> ¹²)	DAMS-DDAP (NDDTC, AIIMS-WHO), unpublished	Current paper (Basu <i>et al</i> ⁹)
Period of data collection	1988-1990	3 months (NHS, 2004)	3 years 2007-2009	Three decades (1978-2008)
Centres/coverage	3 GOs centres (Jodhpur, Lucknow, Delhi)	164 NGOs, 25 GOs and 20 private psychiatrists	GO DACs Consolidated data	One centre
Sample size	10,321	16,942	25,188	6,608
Demography	Males 97-99% Age 21-30 yr 58-61% Married 62-68% Illiterate 23-27% Unemployed 3- 29%	Males 97% Mean age 35 yr Married 72% Illiterate 15% Unemployed 20%	Males 96-99% Mean age 36 yr Married 72% Illiterate 12-15% Unemployed 25-30%	Males 99% Mean age 33-34 yr Married 62-77%
Drug use pattern (%)	Alcohol 15-35 Opiates 42-80	Alcohol 44 Opiates 26 (Opium 9 Heroin 11 Other opiates 6) Cannabis 12	Alcohol 61-65 Opiates 41-43 (Heroin- 15-17 Opium 11-14 Other opiates 13-15) Cannabis 10-11	Alcohol 48-59 Opiates 37-53 Cannabis 7-13
IDU (%)	0.7-2.7	9	6-7	2-20
Others	No prior treatment 73-79%	No prior treatment 73%	No prior treatment 83-86%	-
GO, government organization; NGO, non government organization; DAC, de-addiction centre				

picture with regard to consumption of various drugs in India.

The current paper⁹ reflects certain changes in substance abuse pattern over three decades and most encouraging sign is that increasing number of persons has come forward for treatment. With regard to pattern of drug abuse, most obvious change is report of abuse of inhalants and pharmaceuticals. This is quite in keeping with the general perception in India including north India¹³.

To conclude, it can be stated unambiguously that India requires a robust national Drug Abuse Monitoring System and efforts must be made to improve compliance and streamline the process of data collection. Even online submission of data should be explored. The DAMS at present is in its infancy in terms of its potential benefit to the government. But continued support and persuasion should show long-term stability it will and grow to be in a position where it achieves a 'motherhood' stature.

Rajat Ray* & Anita Chopra

National Drug Dependence

Treatment Centre

All India Institute of Medical Sciences
Ansari Nagar, New Delhi 110 029, India

*For correspondence:

rayrajat2004@yahoo.co.in

References

1. Rootman I, Hughes P. *Drug abuse reporting system*. WHO Offset Publication No. 53. Geneva: WHO; 1980.
2. Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. *Monitoring the future: National survey results on drug use, 1975-2003*, vol. I. *Secondary school students*, NIH Publication 04-5507. Bethesda, MD: National Institute on Drug Abuse; 2004.
3. Treatment demand indicator - an overview of methods and definitions. European Monitoring Centre for Drugs and Drug Addiction. Available from: <http://www.emcdda.europa.eu/stats11/idi/methods>, accessed on August 26, 2011.
4. Drug and Alcohol Services Information System (DASIS). Available from: <http://oas.samhsa.gov/dasis.htm>, accessed on August 27, 2011.
5. The Treatment Episode Data Set. The DASIS Report. October, 2002. Available from: <http://oas.samhsa.gov/2k2/TEDS/TEDS.htm>, August 27, 2011.
6. Drug Abuse Warning Network (DAWN). Collecting the data. Available from: <http://dawninfo.samhsa.gov/collect/>, accessed on August 27, 2011.
7. Drug Treatment overviews. European monitoring centre for drugs and drugs addictions. Available from: <http://www.emcdda.europa.eu/responses/treatment-overviews>, accessed on August 27, 2011.
8. Pulse Check: Drug Market and Chronic Users in 25 of America's Largest Cities. Available from: http://infousa.state.gov/government/branches/docs/pulse_check.pdf, accessed on August 27, 2011.
9. Basu D, Aggarwal M, Das PP, Mattoo SK, Kulhara P, Varma VK. Changing pattern of substance abuse in patients attending a de-addiction centre in north India (1978-2008). *Indian J Med Res* 2012; 135 : 830-6.
10. Mohan D, Dhawan A. *A survey of prevalence of drug dependence and comorbidity in the general population of Thrissur*. Report submitted to WHO (India). New Delhi: WHO; 2002.
11. Mohan D, Sitholey P, Purohit DR. *Collaborative study on narcotics drugs and psychotropic substances, subcomponent-Drug abuse monitoring system*. Task Force project. Report submitted to Indian Council of Medical Research. New Delhi: ICMR; 1993.
12. Ray R, editor. *The extent, pattern and trends of drug abuse in India-National survey*. Ministry of Social Justice and Empowerment, Government of India and United Nations Office on Drugs and Crime. 2004. Available from: www.unodc.org/India/Indianationalsurvey_2004.html, accessed on June 13, 2012.
13. United Nations Office on Drugs and Crime. *Illicit use of prescription drugs in south Asia*. Regional report. UNDOC; 2010 (unpublished report).